

# Monthly Wholesale Trade

Sales and Inventories March 1999

> BW/99-3 Issued May 1999

### U.S. Department of Commerce Economics and Statistics Administration BUREAU OF THE CENSUS

## MONTHLY WHOLESALE TRADE: SALES AND INVENTORIES MARCH 1999

Intention to Revise Wholesale Estimates: Monthly wholesale data will be revised based on the results of the 1997 Annual Trade Survey, which reflects the preliminary 1997 Census of Wholesale Trade data. Unadjusted sales, inventories, and inventories/sales ratios will be revised for January 1993 through May 1999, while corresponding adjusted data will be revised for January 1990 through May 1999. Revised data are scheduled for release the week of August 2.

Sales. March 1999 sales of merchant wholesalers, after adjustment for seasonal variations and trading-day differences but not for price changes, were \$222.2 billion, up 1.7 percent (+/- 0.8%) from the revised February level and were 4.6 percent (+/-1.5%) above the March 1998 level. The February preliminary estimate was revised upward \$0.8 billion or 0.4 percent. Among durable goods, sales of professional and commercial equipment and supplies increased 3.2 percent from last month, while motor vehicles and automotive equipment decreased 3.2 percent. March sales of nondurable goods increased 2.6 percent (+/- 1.1%) from last month and were 4.6 percent (+/-1.7%) above March 1998. Compared to last month, sales of apparel, piece goods, and notions increased 13.5 percent and petroleum and petroleum products grew 12.0 percent.

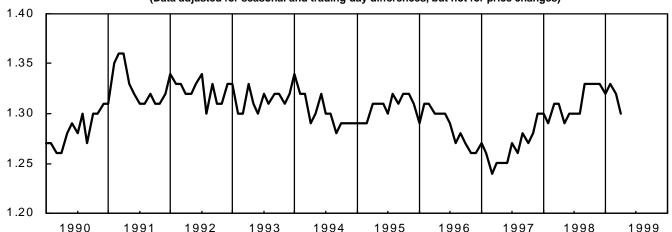
**Inventories.** Total inventories of merchant wholesalers, after adjustment for seasonal variations but not for price changes, were \$288.6 billion at the end of March, up 0.3 percent

(+/-0.4%) from the revised February level and were 4.1 percent (+/-0.9%) above March 1998. The February preliminary estimate was revised upward \$0.04 billion. Among durable goods, inventories of lumber and other construction materials increased 2.2 percent from February, while metals and minerals, except petroleum fell 4.1 percent. Among nondurable goods, inventories of groceries and related products were up 2.1 percent from last month, while apparel, piece goods, and notions were down 2.2 percent.

**Inventories/Sales Ratio.** The March inventories/sales ratio for merchant wholesalers, based on seasonally adjusted data, was 1.30. The March 1998 ratio was 1.31.

Data in this report are based on a sample and, therefore, are subject to sampling and nonsampling variability. A discussion of the reliability of the data and general survey methodology appears in BW/97-RV Current Business Reports.

### Monthly Inventories/Sales Ratios of Merchant Wholesalers: 1990 to 1999 (Data adjusted for seasonal and trading-day differences, but not for price changes)



Monthly Wholesale Trade for April is scheduled to be released June 8, 1999 at 10:00 a.m.

Address inquiries concerning this report to Service Sector Statistics Division, Bureau of the Census, Washington, DC 20233, or call Ronald Piencykoski, (301) 457-2779 or 457-2764. For sale by the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402.

This report is available on day of issue through the Department of Commerce's online Economic Bulletin Board (202-482-1986). The data are also available on the internet - http://www.census.gov/svsd/www/mwts.html.

Table 1. Estimated Monthly Sales, Inventories, and Inventories/Sales Ratios of Merchant Wholesalers: 1999 and 1998

[In millions of dollars]

[	ons of dollars]	rsj Sales						Inventories						Inventories/Sales		
			Percent change			Monthly Percent change						ratios				
SIC <sup>1</sup>	Kind of	N Ao s	Monthly	N do s			ı	N Ao s		N do s			Mar. 99			
code	business	Mar. 1999	Feb. 1999	Mar. 1998	Mar./ Feb.		Mar. 99 Mar. 98	_	Feb. 1999	Mar. 1998	Mar./ Feb.		Mar. 99 Mar. 98	Mar. 1999	Feb. 1999	Mar. 1998
0040	243111333	(p)	(r)	(r)	100.	Juin	11211. 70	(p)	(r)	(r)	100.	Juli.	1741. 70	(p)	(r)	(r)
Adjus	sted <sup>2</sup>	77.	, ,	,,,				3.	, ,	,,				",	,,	
, tajuc	U.S. Total	222,195	218,413	212,379	1.7	1.4	4.6	288,585	287,768	277,249	0.3	0.7	4.1	1.30	1.32	1.31
50	Durable	118,430	117,282	113,137	1.0	2.7	4.7	188,860	188,659	182,567	0.1	0.6	3.4	1.59	1.61	1.61
501	Automotive	20,406	21,078	18,749	-3.2	6.8	8.8	29,523	29,210	30,460	1.1	0.2	-3.1	1.45	1.39	1.62
502	Furniture	3,479	3,475	3,450	0.1	2.4	0.8		5,655	5,420	-0.7	0.7	3.6	1.61	1.63	1.57
503	Lumber	8,338	8,138	7,352	2.5	2.6	13.4	7,770	7,600	7,734	2.2	-0.3	0.5	0.93	0.93	1.05
504	Prof. equip.	22,049	21,363	21,316	3.2	1.8	3.4	24,364	24,919	26,891	-2.2	3.0	-9.4	1.10	1.17	1.26
505	Metals	8,320	8,514	8,949	-2.3	-0.6	-7.0	13,733	14,321	14,097	-4.1	-2.9	-2.6	1.65	1.68	1.58
506	Electrical	18,359	17,989	17,045	2.1	3.3	7.7	28,058	27,999	26,296	0.2	1.0	6.7	1.53	1.56	1.54
507	Hardware	7,160	6,969	6,568	2.7	1.7	9.0	13,564	13,509	13,042	0.4	-1.3	4.0	1.89	1.94	1.99
508	Machinery	18,628	18,105	18,386	2.9	0.0	1.3	48,798	48,371	42,774	0.9	0.9	14.1	2.62	2.67	2.33
509	Other Durable	11,691	11,651	11,322	0.3	3.4	3.3	17,434	17,075	15,853	2.1	0.8	10.0	1.49	1.47	1.40
51	Nondurable	103,765	10 1, 13 1	99,242	2.6	-0.1	4.6	99,725	99,109	94,682	0.6	0.8	5.3	0.96	0.98	0.95
511	Paper	7,839	8,007	7,521	-2.1	-0.2	4.2	9,350	9,284	9,222	0.7	0.9	1.4	1.19	1.16	1.23
512	Drugs	12,438	12,264	10,944	1.4	2.2	13.7	16,247	15,954	14,397	1.8	1.2	12.8	1.31	1.30	1.32
513	Apparel	7,893	6,956	7,180	13.5	-0.7	9.9	11,903	12,168	12,042	-2.2	4.1	-1.2	1.51	1.75	1.68
514	Groceries	29,027	28,723	28,058	1.1	0.5	3.5	16,848	16,498	16,026	2.1	2.1	5.1	0.58	0.57	0.57
515	Farm-products		8,527	9,189	0.5	3.4	-6.8	12,142	11,856	10,773	2.4	-1.6	12.7	1.42	1.39	1.17
516	Chemicals	4,409	4,222	4,569	4.4	-5.3	-3.5	5,102	5,175	4,837	-1.4	-0.6	5.5	1.16	1.23	1.06
517	Petroleum	12,651	11,293	12,063	12.0	-2.5	4.9	4,178	4,176	4,518	0.0	2.1	-7.5	0.33	0.37	0.37
518	Alcohol	5,078	5,106	4,773	-0.5	-0.1	6.4	5,865	5,792	5,300	1.3	3.7	10.7	1.15	1.13	1.11
519	Other Nondur.	15,864	16,033	14,945	-1.1	-0.8	6.1	18,090	18,206	17,567	-0.6	-1.8	3.0	1.14	1.14	1.18
Not A	<u>Adjusted</u>														es to c	
																1998
	U.S. Total	238,867	199,655	222,363	19.6	2.2	7.4	290,664	291,598	279,048	-0.3	0.1	4.2	633,9	22 6	12,989
50	Durable	128,386	106,259	119,747	20.8	5.2	7.2	188,961	189,087	182,652	-0.1	1.1	3.5	335,6	48 3	23,194
501	Automotive	23,038	19,413	20,605	18.7	13.7	11.8	29,936	30,437	30,826	-1.6	2.5	-2.9	59,		53,587
502	Furniture	3,642	3,100	3,591	17.5	5.4	1.4	5,498	5,519	5,317	-0.4	0.4	3.4	,	682	9,749
503	Lumber	8,505	6,852	7,242	24.1	5.5	17.4	7,964	7,592	7,943	4.9	1.9	0.3		850	19,845
504	Prof. equip.	24,210	19,376	22,638	24.9	1.7	6.9	24,340	24,695	26,864	-1.4	1.4	-9.4		641	61,105
505	Metals	9,177	8,063	9,638 17,965	13.8 20.7	-0.9 5.7	-4.8 9.9	13,912	14,393 27,887	14,280 25,849	-3.3 -1.0	-3.5 1.1	-2.6 6.8	25,		26,709
506 507	Electrical	19,736 7,067	16,352 6,042	6,364	20.7 17.0	0.2	9.9	,	13,536	13,159	1.0	0.5	3.9		554 140	48,661 18,140
508	Hardware Machinery	20,770	16,657	19,986	24.7	2.9	3.9		48,226	43,116	2.0	1.9	14.1		618	54,007
509	Other Durable	12,241	10,404	11,718	17.7	8.1	4.5	· ·		15,298	0.2	-0.2	10.1	32,		31,391
51	Nondurable	110,481	93,396	102,616	18.3	-1.1	7.7	· ·	102,511		-0.8	-1.6	5.5	298,2		89,795
511	Paper	8,380	7,575	7,844	10.6	-3.8	6.8		9,256	9,287	1.8	-1.2	1.5		828	22,057
512	Drugs	13,358	11,418	11,436	17.0	-4.4	16.8		16,209	14,498	1.2	-4.3	13.2	36,		32,285
513	Apparel	8,966	7,192	7,991	24.7	12.3	12.2		12,265	11,548	-7.0	0.5	-1.3		561	22,208
514	Groceries	30,653	26,138	28,675	17.3	-2.1	6.9		16,168	15,802	2.9	0.3	5.2	83,		80,802
515	Farm-products		8,143	9,501	11.1	-4.5	-4.8		14,239	11,915	-5.9	-7.6	12.5	25,		29,223
516	Chemicals	4,669	3,943	4,697	18.4	-5.7	-0.6		5,211	4,861	-1.8	0.2	5.3		795	13,725
517	Petroleum	13,094	10,593	12,039	23.6	-8.2	8.8	4,057	4,109	4,387	-1.3	-0.9	-7.5	35,	227	35,588
518	Alcohol	5,134	4,141	4,606	24.0	9.9	11.5	5,865	5,537	5,284	5.9	6.4	11.0	13,	043	11,955
519	Other Nondur.	17,181	14,253	15,827	20.5	6.0	8.6	19,393	19,517	18,814	-0.6	-0.5	3.1	44,	881	41,952

p Preliminary estimate. r Revised.

<sup>1</sup> For a full description of the SIC Codes shown above see the "1987 Standard Industrial Classification Manual" or the Current Business Reports "Annual Benchmark Report for Wholesale Trade" publication.

<sup>2</sup> Data adjusted for seasonal variations and, in the case of sales, also for trading-day differences. See Table 3 for seasonal adjustment factors used

Table 2. Coefficients of Variation and Standard Error for Sales and Inventories

	Kind of business	Coeffici	ents of v (x 1		or level	Sta	ındard er	ror for tre	end	Coefficients of variation for level (x 100)		Standard error for trend
SIC code		P relir estin	ninary nates	Final estimates		Ratio of two consecutive months		Year to year estimates		Cumulative sales estimates		Current year cumulative
		Sales	Inv	Sales	Inv	Sales	Inv	Sales	Inv	Current	Previous	to
		M edian	M edian	M edian	M edian	M edian	M edian	M edian	M edian	year	year	previous year
	U.S. Total	1.1	1.3	1.0	1.3	0.4	0.2	0.8	1.0	1.1	1.1	0.8
50	Durable	1.9	2.3	1.9	2.3	0.6	0.3	1.1	1.2	1.8	2.3	1.0
501	Automotive	4.3	4.8	4.2	5.0	1.1	0.8	1.9	2.2	4.2	4.9	2.4
502	Furniture	6.5	7.7	6.5	7.7	2.0	0.8	3.4	2.6	6.3	6.6	1.3
503	Lumber	5.2	5.5	5.1	5.5	1.2	0.7	1.8	2.3	5.6	5.9	1.3
	Prof. equip.	5.4	6.7	5.1	6.3	1.3	0.7	3.2	2.6	6.4	5.5	3.1
505	Metals	4.8	9.7	4.6	9.4	1.1	0.8	1.5	3.1	5.1	4.6	1.2
506	E lectrical	5.9	6.6	5.9	6.5	1.4	0.6	2.1	2.4	6.0	6.2	2.0
507	Hardware	5.4	6.0	5.4	6.0	1.1	0.6	1.6	2.0	5.8	5.4	1.6
508	Machinery	6.4	6.4	6.3	6.3	1.7	0.6	2.8	2.1	6.3	7.0	2.5
509	Other Durable	6.3	8.1	6.1	8.0	1.7	0.9	2.9	2.2	6.6	5.8	2.8
51	Nondurable	1.9	2.2	1.9	2.2	0.6	0.5	1.0	1.3	1.8	1.8	0.9
511	Paper	4.9	5.1	4.9	5.0	1.1	0.6	2.2	2.3	4.8	5.2	1.3
512	Drugs	6.3	4.9	6.3	4.9	0.9	0.8	2.3	1.6	6.4	7.1	1.5
513	Apparel	5.2	7.7	5.0	7.6	2.1	1.1	2.9	2.6	4.9	5.0	2.1
514	Groceries	3.0	5.1	3.0	5.1	0.8	0.6	1.3	1.2	2.9	2.8	1.2
515	Farm-products		8.3	6.3	8.2	2.2	1.7	2.7	3.7	6.0	5.5	2.2
516	Chemicals	5.5	6.1	5.7	6.1	1.3	0.6	2.0	1.9	5.0	5.9	1.5
517	Petroleum	6.3	15.5	6.1	15.6	0.9	0.9	1.9	1.7	7.3	6.7	1.2
518	Alcohol	6.4	8.7	6.4	8.8	1.5	1.4	1.4	16.9	6.3	6.3	1.3
_519	Other Nondur.	6.3	6.9	6.4	6.6	2.0	1.1	4.1	4.1	6.6	6.6	3.5

Note: The median measures of variability are based on the most recent 12 months of data.

### Sample Design and Reliability of Data

There are two types of errors possible in an estimate based on a sample survey: sampling and nonsampling.

Sampling errors occur because observations are made on a sample, not on the entire population, and different samples could have led to different estimates. Standard errors and coefficients of variation, as calculated for this report, are measures of sampling variation. The margin of sampling error, as used on page 1, gives a range about the estimate which is a 90% confidence interval. If, for example, the trend estimate is up 1.2% and the standard error is 0.9%, then the margin of sampling error is  $\pm 1.65$  x 0.9% or  $\pm 1.5\%$ , and the 90% confidence interval is -0.3% to +2.7%. If the interval contains 0, it cannot be stated with certainty whether there was an increase or decrease. For monthly level, the coefficient of variation (CV) is given. The resulting confidence interval is the estimated value  $\pm 1.65$  x CV x (the estimated value).

Nonsampling errors are usually attributed to many possible sources: (1) coverage error - failure to accurately represent all population units in the sample,

(2) inability to obtain information about all sample cases, (3) response errors, possibly due to definitional difficulties or misreporting, (4) mistakes in recording or coding the data obtained, and (5) other errors of collection or processing, or in imputing for missing or inconsistent data. Coverage error has an effect on the accuracy of estimates for this survey to the extent that the administrative records system, which forms the basis of our survey universe frame, does not contain all legal businesses. A major source of nonsampling error in the published estimates is due to the need to impute data for nonrespondents and for late and inconsistent reports. For all kinds of businesses combined, imputed data amount to about 26 percent of the total monthly wholesale sales estimates and 28 percent of the total monthly wholesale inventories estimates.

Nonsampling errors also occur in complete censuses. Although no direct measures of these errors have been obtained, precautionary steps were taken in all phases of the collection, processing, and tabulation of the data to minimize their influence.

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Table 3. Seasonal Adjustment Factors for Sales and Inventories of Merchant Wholesalers

SIC	Kind of			Sa	les			Inventories						
code	Business		19	99		1998	1998		19	1998	1998			
		Apr.	Mar.r	Feb.r	Jan.	Dec.	Mar.r	Apr.	Mar.r	Feb.r	Jan.	Dec.	Mar.r	
	U.S. Total <sup>1</sup>	1.009	1.077	0.911	0.908	1.016	1.044	1.007	1.009	1.015	1.019	1.004	1.009	
50	Durable	1.004	1.081	0.904	0.883	1.006	1.053	1.010	1.002	1.003	0.997	0.984	1.002	
501	Automotive	1.044	1.129	0.921	0.865	1.036	1.099	1.017	1.014	1.042	1.019	0.969	1.012	
502	Furniture	1.012	1.047	0.892	0.866	1.020	1.041	0.976	0.979	0.976	0.979	0.976	0.981	
503	Lumber	1.016	1.020	0.842	0.819	0.889	0.985	1.026	1.025	0.999	0.977	0.964	1.027	
504	Prof. equip.	0.972	1.098	0.907	0.908	1.083	1.062	1.012	0.999	0.991	1.007	0.999	0.999	
505	Metals	1.032	1.103	0.947	0.950	0.946	1.077	1.009	1.013	1.005	1.011	1.010	1.013	
506	E lectrical	0.963	1.075	0.909	0.888	0.990	1.054	1.000	0.984	0.996	0.995	0.977	0.983	
507	Hardware	0.986	0.987	0.867	0.880	0.942	0.969	1.019	1.008	1.002	0.984	0.983	1.009	
508	Machinery	1.057	1.115	0.920	0.894	1.020	1.087	1.019	1.008	0.997	0.987	0.990	1.008	
509	Other Durable	0.958	1.047	0.893	0.854	1.029	1.035	0.988	0.966	0.984	0.994	0.977	0.965	
51	Nondurable	1.014	1.070	0.922	0.936	1.026	1.034	1.010	1.020	1.034	1.057	1.039	1.020	
511	Paper	0.993	1.069	0.946	0.981	1.013	1.043	1.009	1.008	0.997	1.018	1.026	1.007	
512	Drugs	1.008	1.074	0.931	0.996	1.054	1.045	1.004	1.010	1.016	1.074	1.020	1.007	
513	Apparel	0.958	1.136	1.034	0.914	0.825	1.113	0.969	0.958	1.008	1.044	1.007	0.959	
514	Groceries	0.983	1.056	0.910	0.934	1.032	1.022	0.986	0.987	0.980	0.997	1.006	0.986	
515	Farm-products	0.974	1.056	0.955	1.034	1.154	1.034	0.994	1.104	1.201	1.279	1.235	1.106	
516	Chemicals	1.029	1.059	0.934	0.938	0.938	1.028	1.006	1.003	1.007	0.999	0.999	1.005	
517	Petroleum	1.019	1.035	0.938	0.996	1.049	0.998	0.993	0.971	0.984	1.014	1.049	0.971	
518	Alcohol	1.001	1.011	0.811	0.737	1.173	0.965	0.998	1.000	0.956	0.931	0.918	0.997	
519	Other Nondur.	1.164	1.083	0.889	0.832	0.977	1.059	1.072	1.072	1.072	1.058	1.013	1.071	



#### r Revised

1 Adjusted sales and inventories data shown in table 1 are obtained by dividing the unadjusted data by the adjustment factors shown above for the corresponding group. Adjusted data for the totals are obtained by adding the durable and nondurable goods. Seasonal factors shown for the totals will provide an approximation of the adjusted estimates, but may show small differences from the published data.

Note: The seasonal factors shown have been computed based on monthly estimates through the current month preliminary estimates.